RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/807,096B
Source: IFW16
Date Processed by STIC: 4/20/05

ENTERED

IFW16

RAW SEQUENCE LISTING DATE: 04/20/2007
PATENT APPLICATION: **US/10/807,096B** TIME: 13:48:22

Input Set : **A:\12-SQ Listing-16 April 2007.txt**
Output Set: **N:\CRF4\04202007\J807096B.raw**

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      3 <110> APPLICANT: Svendsen, Allan
      4       Minning, Stefan
      6 <120> TITLE OF INVENTION: Subtilases
      8 <130> FILE REFERENCE: 10321.200-US
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/807,096B
C--> 10 <141> CURRENT FILING DATE: 2004-03-22
     10 <160> NUMBER OF SEQ ID NOS: 8
     12 <170> SOFTWARE: PatentIn version 3.4
     14 <210> SEQ ID NO: 1
     15 <211> LENGTH: 433
     16 <212> TYPE: PRT
     17 <213> ORGANISM: Bacillus sp. JP170
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     25 Phe Gly Leu Tyr Gly Gln Gly Gln Ile Val Ala Val Ala Asp Thr Gly
     26             20                  25                  30
     29 Leu Asp Thr Gly Arg Asn Asp Ser Ser Met His Glu Ala Phe Arg Gly
     30         35                  40                  45
     33 Lys Ile Thr Ala Leu Tyr Ala Leu Gly Arg Thr Asn Asn Ala Asn Asp
     34     50                  55                  60
     37 Pro Asn Gly His Gly Thr His Val Ala Gly Ser Val Leu Gly Asn Ala
     38 65                  70                  75                  80
     41 Thr Asn Lys Gly Met Ala Pro Gln Ala Asn Leu Val Phe Gln Ser Ile
     42                 85                  90                  95
     45 Met Asp Ser Gly Gly Gly Leu Gly Gly Leu Pro Ala Asn Leu Gln Thr
     46             100                 105                 110
     49 Leu Phe Ser Gln Ala Tyr Ser Ala Gly Ala Arg Ile His Thr Asn Ser
     50         115                 120                 125
     53 Trp Gly Ala Pro Val Asn Gly Ala Tyr Thr Thr Asp Ser Arg Asn Val
     54     130                 135                 140
     57 Asp Asp Tyr Val Arg Lys Asn Asp Met Thr Ile Leu Phe Ala Ala Gly
     58 145                 150                 155                 160
     61 Asn Glu Gly Pro Gly Ser Gly Thr Ile Ser Ala Pro Gly Thr Ala Lys
     62                 165                 170                 175
     65 Asn Ala Ile Thr Val Gly Ala Thr Glu Asn Leu Arg Pro Ser Phe Gly
     66             180                 185                 190
     69 Ser Tyr Ala Asp Asn Ile Asn His Val Ala Gln Phe Ser Ser Arg Gly
     70         195                 200                 205
     73 Pro Thr Arg Asp Gly Arg Ile Lys Pro Asp Val Met Ala Pro Gly Thr
     74     210                 215                 220
     77 Tyr Ile Leu Ser Ala Arg Ser Ser Leu Ala Pro Asp Ser Ser Phe Trp
     78 225                 230                 235                 240
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81 Ala Asn His Asp Ser Lys Tyr Ala Tyr Met Gly Gly Thr Ser Met Ala
82                 245                 250                 255
85 Thr Pro Ile Val Ala Gly Asn Val Ala Gln Leu Arg Glu His Phe Val
86             260                 265                 270
89 Lys Asn Arg Gly Val Thr Pro Lys Pro Ser Leu Leu Lys Ala Ala Leu
90         275                 280                 285
93 Ile Ala Gly Ala Ala Asp Val Gly Leu Gly Phe Pro Asn Gly Asn Gln
94     290                 295                 300
97 Gly Trp Gly Arg Val Thr Leu Asp Lys Ser Leu Asn Val Ala Phe Val
98 305                 310                 315                 320
101 Asn Glu Thr Ser Pro Leu Ser Thr Ser Gln Lys Ala Thr Tyr Ser Phe
102                 325                 330                 335
105 Thr Ala Gln Ala Gly Lys Pro Leu Lys Ile Ser Leu Val Trp Ser Asp
106             340                 345                 350
109 Ala Pro Gly Ser Thr Thr Ala Ser Leu Thr Leu Val Asn Asp Leu Asp
110         355                 360                 365
113 Leu Val Ile Thr Ala Pro Asn Gly Thr Lys Tyr Val Gly Asn Asp Phe
114     370                 375                 380
117 Thr Ala Pro Tyr Asp Asn Asn Trp Asp Gly Arg Asn Asn Val Glu Asn
118 385                 390                 395                 400
121 Val Phe Ile Asn Ala Pro Gln Ser Gly Thr Tyr Thr Val Glu Val Gln
122                 405                 410                 415
125 Ala Tyr Asn Val Pro Val Ser Pro Gln Thr Phe Ser Leu Ala Ile Val
126             420                 425                 430
129 His
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134 <211> LENGTH: 433
135 <212> TYPE: PRT
136 <213> ORGANISM: Bacillus sp. Y
138 <400> SEQUENCE: 2
140 Asn Asp Val Ala Arg Gly Ile Val Lys Ala Asp Val Ala Gln Asn Asn
141 1               5                   10                  15
144 Tyr Gly Leu Tyr Gly Gln Gly Gln Leu Val Ala Val Ala Asp Thr Gly
145             20                  25                  30
148 Leu Asp Thr Gly Arg Asn Asp Ser Ser Met His Glu Ala Phe Arg Gly
149         35                  40                  45
152 Lys Ile Thr Ala Leu Tyr Ala Leu Gly Arg Thr Asn Asn Ala Ser Asp
153     50                  55                  60
156 Pro Asn Gly His Gly Thr His Val Ala Gly Ser Val Leu Gly Asn Ala
157 65                  70                  75                  80
160 Leu Asn Lys Gly Met Ala Pro Gln Ala Asn Leu Val Phe Gln Ser Ile
161                 85                  90                  95
164 Met Asp Ser Ser Gly Gly Leu Gly Gly Leu Pro Ser Asn Leu Asn Thr
165             100                 105                 110
168 Leu Phe Ser Gln Ala Trp Asn Ala Gly Ala Arg Ile His Thr Asn Ser
169         115                 120                 125
172 Trp Gly Ala Pro Val Asn Gly Ala Tyr Thr Ala Asn Ser Arg Gln Val
173     130                 135                 140
176 Asp Glu Tyr Val Arg Asn Asn Asp Met Thr Val Leu Phe Ala Ala Gly
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Input Set : **A:\12-SQ Listing-16 April 2007.txt**
Output Set: **N:\CRF4\04202007\J807096B.raw**

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177 145                 150                 155                 160
180 Asn Glu Gly Pro Asn Ser Gly Thr Ile Ser Ala Pro Gly Thr Ala Lys
181                 165                 170                 175
184 Asn Ala Ile Thr Val Gly Ala Thr Glu Asn Tyr Arg Pro Ser Phe Gly
185             180                 185                 190
188 Ser Ile Ala Asp Asn Pro Asn His Ile Ala Gln Phe Ser Ser Arg Gly
189         195                 200                 205
192 Ala Thr Arg Asp Gly Arg Ile Lys Pro Asp Val Thr Ala Pro Gly Thr
193     210                 215                 220
196 Phe Ile Leu Ser Ala Arg Ser Ser Leu Ala Pro Asp Ser Ser Phe Trp
197 225                 230                 235                 240
200 Ala Asn Tyr Asn Ser Lys Tyr Ala Tyr Met Gly Gly Thr Ser Met Ala
201                 245                 250                 255
204 Thr Pro Ile Val Ala Gly Asn Val Ala Gln Leu Arg Glu His Phe Ile
205             260                 265                 270
208 Lys Asn Arg Gly Ile Thr Pro Lys Pro Ser Leu Ile Lys Ala Ala Leu
209         275                 280                 285
212 Ile Ala Gly Ala Thr Asp Val Gly Leu Gly Tyr Pro Ser Gly Asp Gln
213     290                 295                 300
216 Gly Trp Gly Arg Val Thr Leu Asp Lys Ser Leu Asn Val Ala Tyr Val
217 305                 310                 315                 320
220 Asn Glu Ala Thr Ala Leu Ala Thr Gly Gln Lys Ala Thr Tyr Ser Phe
221                 325                 330                 335
224 Gln Ala Gln Ala Gly Lys Pro Leu Lys Ile Ser Leu Val Trp Thr Asp
225             340                 345                 350
228 Ala Pro Gly Ser Thr Thr Ala Ser Tyr Thr Leu Val Asn Asp Leu Asp
229         355                 360                 365
232 Leu Val Ile Thr Ala Pro Asn Gly Gln Lys Tyr Val Gly Asn Asp Phe
233     370                 375                 380
236 Ser Tyr Pro Tyr Asp Asn Asn Trp Asp Gly Arg Asn Asn Val Glu Asn
237 385                 390                 395                 400
240 Val Phe Ile Asn Ala Pro Gln Ser Gly Thr Tyr Ile Ile Glu Val Gln
241                 405                 410                 415
244 Ala Tyr Asn Val Pro Ser Gly Pro Gln Arg Phe Ser Leu Ala Ile Val
245             420                 425                 430
248 His
252 <210> SEQ ID NO: 3
253 <211> LENGTH: 433
254 <212> TYPE: PRT
255 <213> ORGANISM: Bacillus sp. SD-521
257 <400> SEQUENCE: 3
259 Asn Asp Val Ala Arg Gly Ile Val Lys Ala Asp Val Ala Gln Asn Asn
260 1               5                   10                  15
263 Tyr Gly Leu Tyr Gly Gln Gly Gln Val Val Ala Val Ala Asp Thr Gly
264             20                  25                  30
267 Leu Asp Thr Gly Arg Asn Asp Ser Ser Met His Glu Ala Phe Arg Gly
268         35                  40                  45
271 Lys Ile Thr Ala Leu Tyr Ala Leu Gly Arg Thr Asn Asn Ala Asn Asp
272     50                  55                  60
```

RAW SEQUENCE LISTING DATE: 04/20/2007
PATENT APPLICATION: **US/10/807,096B** TIME: 13:48:22

Input Set : **A:\12-SQ Listing-16 April 2007.txt**
Output Set: **N:\CRF4\04202007\J807096B.raw**

```
275 Pro Asn Gly His Gly Thr His Val Ala Gly Ser Val Leu Gly Asn Ala
276 65                  70                  75                  80
279 Leu Asn Lys Gly Met Ala Pro Gln Ala Asn Leu Val Phe Gln Ser Ile
280                 85                  90                  95
283 Met Asp Ser Ser Gly Gly Leu Gly Gly Leu Pro Ser Asn Leu Asn Thr
284             100                 105                 110
287 Leu Phe Ser Gln Ala Trp Asn Ala Gly Ala Arg Ile His Thr Asn Ser
288         115                 120                 125
291 Trp Gly Ala Pro Val Asn Gly Ala Tyr Thr Ala Asn Ser Arg Gln Val
292     130                 135                 140
295 Asp Glu Tyr Val Arg Asn Asn Asp Met Thr Val Leu Phe Ala Ala Gly
296 145                 150                 155                 160
299 Asn Glu Gly Pro Asn Ser Gly Thr Ile Ser Ala Pro Gly Thr Ala Lys
300                 165                 170                 175
303 Asn Ala Ile Thr Val Gly Ala Thr Glu Asn Tyr Arg Pro Ser Phe Gly
304             180                 185                 190
307 Ser Leu Ala Asp Asn Pro Asn His Ile Ala Gln Phe Ser Ser Arg Gly
308         195                 200                 205
311 Ala Thr Arg Asp Gly Arg Ile Lys Pro Asp Val Thr Ala Pro Gly Thr
312     210                 215                 220
315 Phe Ile Leu Ser Ala Arg Ser Ser Leu Ala Pro Asp Ser Ser Phe Trp
316 225                 230                 235                 240
319 Ala Asn Tyr Asn Ser Lys Tyr Ala Tyr Met Gly Gly Thr Ser Met Ala
320                 245                 250                 255
323 Thr Pro Ile Val Ala Gly Asn Val Ala Gln Leu Arg Glu His Phe Ile
324             260                 265                 270
327 Lys Asn Arg Gly Ile Thr Pro Lys Pro Ser Leu Ile Lys Ala Ala Leu
328         275                 280                 285
331 Ile Ala Gly Ala Thr Asp Val Gly Leu Gly Tyr Pro Ser Gly Asp Gln
332     290                 295                 300
335 Gly Trp Gly Arg Val Thr Leu Asp Lys Ser Leu Asn Val Ala Tyr Val
336 305                 310                 315                 320
339 Asn Glu Ala Thr Ala Leu Ala Thr Gly Gln Lys Ala Thr Tyr Ser Phe
340                 325                 330                 335
343 Gln Ala Gln Ala Gly Lys Pro Leu Lys Ile Ser Leu Val Trp Thr Asp
344             340                 345                 350
347 Ala Pro Gly Ser Thr Thr Ala Ser Tyr Thr Leu Val Asn Asp Leu Asp
348         355                 360                 365
351 Leu Val Ile Thr Ala Pro Asn Gly Gln Lys Tyr Val Gly Asn Asp Phe
352     370                 375                 380
355 Ser Tyr Pro Tyr Asp Asn Asn Trp Asp Gly Arg Asn Asn Val Glu Asn
356 385                 390                 395                 400
359 Val Phe Ile Asn Ala Pro Gln Ser Gly Thr Tyr Thr Ile Glu Val Gln
360                 405                 410                 415
363 Ala Tyr Asn Val Pro Ser Gly Pro Gln Arg Phe Ser Leu Ala Ile Val
364             420                 425                 430
367 His
371 <210> SEQ ID NO: 4
372 <211> LENGTH: 275
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RAW SEQUENCE LISTING DATE: 04/20/2007
PATENT APPLICATION: **US/10/807,096B** TIME: 13:48:22

Input Set : **A:\12-SQ Listing-16 April 2007.txt**
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373 <212> TYPE: PRT
374 <213> ORGANISM: Bacillus amyloliquefaciens
376 <400> SEQUENCE: 4
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382 His Ser Gln Gly Tyr Thr Gly Ser Asn Val Lys Val Ala Val Ile Asp
383 20 25 30
386 Ser Gly Ile Asp Ser Ser His Pro Asp Leu Lys Val Ala Gly Gly Ala
387 35 40 45
390 Ser Met Val Pro Ser Glu Thr Asn Pro Phe Gln Asp Asn Asn Ser His
391 50 55 60
394 Gly Thr His Val Ala Gly Thr Val Ala Ala Leu Asn Asn Ser Ile Gly
395 65 70 75 80
398 Val Leu Gly Val Ala Pro Ser Ala Ser Leu Tyr Ala Val Lys Val Leu
399 85 90 95
402 Gly Ala Asp Gly Ser Gly Gln Tyr Ser Trp Ile Ile Asn Gly Ile Glu
403 100 105 110
406 Trp Ala Ile Ala Asn Asn Met Asp Val Ile Asn Met Ser Leu Gly Gly
407 115 120 125
410 Pro Ser Gly Ser Ala Ala Leu Lys Ala Ala Val Asp Lys Ala Val Ala
411 130 135 140
414 Ser Gly Val Val Val Val Ala Ala Ala Gly Asn Glu Gly Thr Ser Gly
415 145 150 155 160
418 Ser Ser Ser Thr Val Gly Tyr Pro Gly Lys Tyr Pro Ser Val Ile Ala
419 165 170 175
422 Val Gly Ala Val Asp Ser Ser Asn Gln Arg Ala Ser Phe Ser Ser Val
423 180 185 190
426 Gly Pro Glu Leu Asp Val Met Ala Pro Gly Val Ser Ile Gln Ser Thr
427 195 200 205
430 Leu Pro Gly Asn Lys Tyr Gly Ala Tyr Asn Gly Thr Ser Met Ala Ser
431 210 215 220
434 Pro His Val Ala Gly Ala Ala Ala Leu Ile Leu Ser Lys His Pro Asn
435 225 230 235 240
438 Trp Thr Asn Thr Gln Val Arg Ser Ser Leu Glu Asn Thr Thr Thr Lys
439 245 250 255
442 Leu Gly Asp Ser Phe Tyr Tyr Gly Lys Gly Leu Ile Asn Val Gln Ala
443 260 265 270
446 Ala Ala Gln
447 275
450 <210> SEQ ID NO: 5
451 <211> LENGTH: 7
452 <212> TYPE: PRT
453 <213> ORGANISM: Artificial Sequence
455 <220> FEATURE:
456 <223> OTHER INFORMATION: Synthetic
458 <400> SEQUENCE: 5
460 Leu Asn Asn Ser Ile Gly Val
461 1 5
464 <210> SEQ ID NO: 6

VERIFICATION SUMMARY DATE: 04/20/2007
PATENT APPLICATION: **US/10/807,096B** TIME: 13:48:23

Input Set : **A:\12-SQ Listing-16 April 2007.txt**
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L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date